

Application Number: 10/057,094
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Applicant: Marc Theeuwes

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Action 4 and 5 - Claim Objections

Response: Per the examiner's suggestion, "a access network" has been changed to "an access network". Per the examiner's suggestion "a process" has been clarified to mean "a software process".

Action 6 and 7 - Claim Rejections 35 USC §102

Response: Regarding Buttitta et al. (US Patent Number 5,913,166)

This patent invention application differs significantly from the above cited patent in the following ways:

Buttitta teaches a wireless access system arranged for providing a duality (private wireless system and public cellular system) of wireless methods for a wireless station for accessing a singular service (telecommunications).

This application invention refers to a plurality of wireless methods (page 3, Col 2, lines 28-31) that can consist of, for example, cellular methods such as GSM/GPRS/EDGE, network methods such as wireless Local Area Network (WLAN) based on IEEE 802.11, and other methods such as the wireless Metropolitan Area Network standard IEEE 802.16.

The wireless methods described by Buttitta in Col 5 lines 47-51 refer to one of two wireless methods, a private network and a public network, and the service offered is telecommunications based for switching a telephone call from a private network to a public cellular network.

This application invention refers specifically (page 1, Col 2, 23-27) to a plurality of data or 'Internet Protocol' based services, not the telecommunications based service and scenario referenced by Buttitta. Although a telecommunications network may be utilized during switching, the focus of this invention is not on traditional Public Switched Telephone Network or Cellular telecommunications voice calls. This invention switches and controls data services which consists of Internet Protocol data that can be offered through a variety of protocols such as Simple Mail Transfer Protocol, Hyper Text Transfer Protocol (and HTTP secured), Session Initiation Protocol and other internet services, voice over Internet Protocols, multimedia and video streaming.

In addition, Buttitta emphasizes that the switching is triggered manually or automatically when the mobile station is moved to the fringe of the private base station area (col 3, lines 44-50).

This application invention offers that switching of the wireless method can occur based on a number of criteria (type of service or protocol, bandwidth, power, frequency, location, billing scheme, etc.), not simply range as referenced by Buttitta (page 1, Col 2, 28-32).

The 5ESS AT&T electronic switch referenced by Buttitta is used in patent 5,913,166 to enable voice telecommunications calls to be switched between the private base station and the public cellular system.

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Action 1 - Specification

Response: Per the examiner's request, the title of the invention is changed from "Wireless Access System" to "Network Switching Apparatus for control of communications through a multitude of wireless methods."

Action 2 and 3 - Claim Rejections - 35 USC §112

Response: Claims 1-8 in the original patent application have been renumbered per the examiner's suggestions. And, renumbered claims 1-3 have been restated to clearly specify the complete operative device.

I claim:

1. Network Switching Apparatus for control of communications through a multitude of wireless methods, comprising:
 - an access network switching unit (ANSU);
 - means for switching said wireless methods.
2. The access network switching unit (ANSU) of claim 1 containing:
 - a data storage [7] element for storing data, the operating system and software where said data storage element that can be composed of a hard drive, an array of hard drives or a networked storage element;
 - random access memory [8];
 - a microprocessor [9] that can be implemented as a RISC (reduced instruction set computer), CISC (complex instruction set computer or computing), or other microprocessor suitable for performing the functions required of an ANSU;
 - network interface [10] hardware device suitable for managing communications to a network or multitude of networks [3];
 - a wireless method interface [11] hardware device suitable for managing communications for switching the various wireless methods [2];
 - an optional administration unit [4] that can reside within or external to the ANSU;
 - an optional keyboard, mouse and screen interface [12].
3. A means for switching as claimed in claim 1 wherein said means for switching is controlled by a software process [13], comprising:
 - rules that trigger the switching of the wireless method [2];
 - based on but not limited to, services delivered, services requested, bandwidth required, power level, frequency, location, billing scheme, or another rule set by the administration unit or ANSU.
 - software that controls the interfaces to wireless transceivers [14];
 - software that controls the interface to the networks [3];
 - administrative software that monitors the telephony services, data services, Internet services, voice over Internet protocol (VOIP) services, multimedia services, broadcast services, or other networking services used.

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The SESS AT&T switch can operate in land line and mobile environments as described by Lucent:
<http://www.lucent.com/products/solution/0,,CFID+2019-STID+10048-SOLD+824-LOCL+1,00.html>
<http://www.lucent.com/press/0399/990318.nsd.html>

The SESS-2000 Switch supports multiple versions of the CDMA communications standard Mobile Switching Center (MSC) functionality. It is a multipurpose platform capable of supporting both land line and wireless telecommunications applications for traditional voice traffic using circuit-based switching and data traffic of packet-based technology. However, the SESS electronic switch does not enable IP data services noted in this patent application (page 1, column 2, lines 23-27) to be switched dynamically from one wireless method to another based on a the criteria noted in this patent application (page 1, column 2, lines 28-32).

As suggested by the examiner, this patent application will also amend the "Cross Reference to Related Applications" section of the patent to acknowledge the following patents.

Patent #	Date	Inventor(s)	Title	Field
6,501,946 B1	Dec 31, 2002	Farah et al	Multiple uniquely distinguishable wireless handsets using a single mobile identification number	455/414 .1
6,327,470 B1	Dec. 4, 2001	Ostling	Handover Between Fixed and Mobile Networks for Dual Mode Phones	455/437
5,777,991	July 7, 1998	Adachi et al.	Personal Communications Apparatus with Call Switching Modem and Packet Switching Modem	370/352
6,266,699 B1	July 24, 2001	Sevcik	Control in an Intelligent Network	709/229

Ostling (US Patent 6,327,470) as with Buttitta, presents an invention that refers specifically to transferring of telecommunications calls between a fixed network and a mobile network. This differs substantially from this patent application. This patent application refers specifically (page 1, Col 2, 23-27) to a plurality of data or 'Internet Protocol' based services, not just the telecommunications based service. In addition, Ostling refers specifically to the switching of telecommunications calls from fixed to mobile networks. This patent application refers to the switching of data traffic from one wireless method to another.

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Adachi et al. (US Patent 5,777,991) presents an invention that refers specifically to a device that has been enabled with both a call switching and a packet switching modem. Although the Adachi patent employs switching as part of its invention, it differs significantly from this patent application in that it does not address switching between multiple wireless methods, the use of a plurality of data services, or the ability to control switching based on a variety of criteria (type of service or protocol, bandwidth, power, frequency, location, billing scheme, etc.).

Sevcik (US Patent 6,266,699 B1) presents an invention that refers specifically to a control point that enables Internet services to be requested and provisioned through an optimum route. The Sevcik patent does not address switching between multiple wireless methods, the use of a plurality of data services, or the ability to control switching based on a variety of criteria (type of service or protocol, bandwidth, power, frequency, location, billing scheme, etc.).